

## REMARKS

Claims 1-27 were pending of which Claims 22-27 were withdrawn from consideration. Claims 1-21 were rejected. Claims 1, 9, 11, 14, and 20 have been amended and Claims 2, 6, 10, 15, 16, and 22-27 have been cancelled.

### Claim Rejections – 35 U.S.C. §103

Claims 1-5, 9-12, and 14-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Law (5,754,296) (“Law”) in view of Carter et al. (4,508,832) (“Carter”). Reconsideration is respectfully requested.

Claim 1 has been amended to recite “an electromagnetic source that is a flash bulb ... to produce a pulsed electromagnetic beam with multiple wavelengths”, “a spatially dependent polarizing element ... that varies the phase of the pulsed electromagnetic beam spatially along a first direction”, “a wavelength-dispersing component [that] separates the component wavelengths of the pulsed electromagnetic beam along a second direction”; and “the multi-element detector detects the intensity of the pulsed electromagnetic beam as a function of phase along the first direction and as a function of wavelength along the second direction.”

Support for the amendments to Claim 1 can be found in originally filed Claim 2 and Claim 6, both of which are now cancelled, as well as in, e.g., Fig. 4 and the accompanying text.

Both Law and Carter teach the use of a laser, i.e., laser 14 in Law (col. 5, line 61) and laser 1 in Carter (col. 7, line 19). Neither Law nor Carter teach or suggest the use of a “flash bulb”. Law notes that a broadband light source may be used, but states that “[a] monochrometer permitting passage of one distinct wavelength would be necessarily included for accurate measurements.” Col. 9, lines 35-38. Thus, neither Law nor Carter teach or suggest the use of a “wavelength-dispersing component” or “detecting the intensity of the resulting beam as a function of phase in one direction and as a function of wavelength in another direction.

Accordingly, Applicants submit that Claim 1 is patentable over the combination of Law and Carter. Claims 3-5 depend from Claim 1 and are therefore likewise patentable.

Claim 9 has been amended to recite “a broadband electromagnetic beam”, “filtering the wavelengths ... spatially in a second direction”, and “detecting the intensity ... as a

function of the spatially dependent relative phase shift in the first direction and the wavelengths in the second direction.”

Support for the amendments to Claim 9 can be found in originally filed Claim 10, which is now cancelled, as well as in, e.g., Fig. 4 and the accompanying text.

As discussed above in reference to Claim 1, neither Law nor Carter teach or suggest the elements of amended Claim 9, and therefore, Applicants submit that Claim 9 is patentable over the combination of Law and Carter. Claims 11-13 depend from Claim 9 and are therefore likewise patentable.

Claim 14 recites is amended to recite “a flash bulb light source”, “means for dispersing the wavelengths of the expanded pulsed electromagnetic beam along a second direction”, and “measuring the intensity of the polarized phase shifted beam as a function of phase shift in the first direction and as a function of wavelengths in the second direction...”

Support for the amendments to Claim 14 can be found in originally filed Claim 15 and 16, which are now cancelled, as well as in, e.g., Fig. 4 and the accompanying text.

As discussed above in reference to Claim 1, neither Law nor Carter teach or suggest the elements of amended Claim 14, and therefore, Applicants submit that Claim 14 is patentable over the combination of Law and Carter. Claims 17-18 depend from Claim 14 and are therefore likewise patentable.

Claims 6-8, 13, 16, and 19-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Law in view of Carter and further in view of Aspnes et al. (6,134,012) (“Aspnes”) and Houston et al. (4,931,657) (“Houston”).

Claims 6 and 16 have been cancelled, but the subject matter from these claims has been included in independent Claims 1 and 14, respectively.

The Examiner stated that Aspnes discloses an ellipsometer that includes “a wavelength dispersing component (128)” and that it would have been obvious to replace the light source of Law with a broadband light source and detector unit (72) of Aspnes. The “rationale for this modification would have arisen from the fact that the system of Aspnes et al can function over a wide range of wavelengths, thus providing a broad perspective of the sample as compared to measurements made at a single wavelength as suggested by Aspnes (column 1, lines 53-57).

Applicants point out that the cited section of Aspnes is referring to the advantages of a particular type of polarizer and analyzer and not, as the Examiner suggests, a type of light

source. In other words, Aspnes is not suggesting that single wavelength light sources in ellipsometers be replaced with multiple wavelength light sources.

Moreover, Law specifically states that if a broadband light source is to be used, “[a] monochromator permitting passage of one distinct wavelength would be necessarily included for accurate measurements.” Col. 9, lines 35-38. Thus, Law teaches away from any modification to include a broadband light source, a wavelength dispersing element that spatially disperses the wavelengths, and the detection of the spatially dispersed wavelengths. As stated in MPEP §2141.02, “A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.” W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

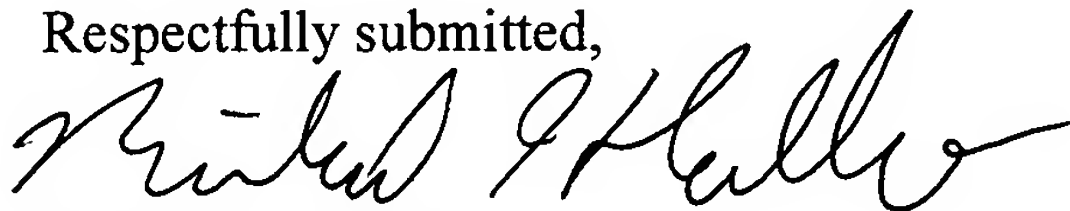
Thus, Applicants assert that without a hindsight based analysis derived from Applicants disclosure, there is no motivation to combine Law, Carter, and Aspnes. Moreover, to make such a combination is to ignore the express statements of Law, which teach away from such a combination. Accordingly, a *prima facie* case of obviousness has not been met.

Thus, Applicants respectfully submit that Claim 1, 7-8, 13, 14, and 19-21 are patentable over the combination of Law, Carter, Aspnes, and Houston. Reconsideration and withdrawal of this rejection is respectfully requested.

Claims 1, 9, 11, 14, and 20 have been amended and Claims 2, 6, 10, 15, 16, and 22-27 have been cancelled leaving Claims 1, 3-5, 7-9, 11-14, 17-21 pending. For the above reasons, Applicants respectfully request allowance of all pending claims. Should the Examiner have any questions concerning this response, the Examiner is invited to call the undersigned at (408) 982-8202.

**Via Express Mail Label No.  
EV 450 194 251 US**

Respectfully submitted,



Michael J. Halbert  
Attorney for Applicants  
Reg. No. 40,633

SILICON VALLEY  
PATENT GROUP LLP  
2350 Mission College Blvd.  
Suite 360  
Santa Clara, CA 95054  
(408) 982-8200  
FAX (408) 982-8210